STRESS, SCHIZOPHRENIA & ADDICTION - IN OUR GENES?

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Some individuals are aggressive and extraverted while others tend to be timid and keep their feelings concealed. What determines these and other traits are determined by both inherited and environmental influences. Which one of these ultimately proves to be the most important in shaping how we perceive things or react to stressful situations can be difficult to predict and may also vary for each of us.

With respect to physical features, whether we will be tall or short, have a cleft chin or dimples are primarily preordained. The genes we inherit from both parents remain permanent throughout life but whether they are expressed depends on several factors. Genes for black or curly hair and brown eyes are dominant while those for blond hair, straight hair and blue eyes are recessive. Thus, you will tend to have dark, curly hair and brown eyes unless both your parents passed on the genes for blue eyes, blond and straight hair. However, other influences may determine the final results.

Parents with black or brunette hair tend to have dark-haired children who might still have recessive genes that would be passed on to succeeding generations. People with auburn hair undoubtedly had ancestors with red hair somewhere in their lineage even if there is no record of this. The gene for red hair is on a different chromosome. If two are inherited, your hair will be more intensely red compared to only one, and if absent, there is no reddish hue. The final shade depends on other factors since the darker the hair color, the more the redness will be masked. Blond-haired children with two red genes will likely wind up as flaming red heads.

To further complicate things, hair color is determined by the amount and type of melanin made by pigment producing cells. The more densely melanin granules are packed together the darker the hair. Eumelanin makes brown hair darker and pheomelanin gives yellow-blonde hair a reddish color. While genes influence melanin production, the amount that is manufactured depends on how the body metabolizes a molecule called tyrosine. Copper is a crucial component in this process. When dietary intake of copper is adequate tyrosine is completely broken down and plenty of melanin is accessible to give hair a darker color. If there is a deficiency of copper new hair growth will be light regardless of your genes. When the cells that produce pigment fail to function as we age, any new hair that grows in will be gray or white.